



# **Carbide and Carbon Building**

## **230 N. Michigan Ave.**

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**Submitted to the Commission on Chicago Landmarks in April 1989**  
**Recommended to the City Council on April 6, 1990**



**CITY OF CHICAGO**  
**Richard M. Daley, Mayor**

**Department of Planning and Development**  
**J.F. Boyle, Jr., Commissioner**



ABOVE: The Carbide and Carbon Building, shortly after its completion in 1929. It was built for the Union Carbide and Carbon Corporation, the inventors of the dry cell battery.

COVER: A 1989 view of the Carbide and Carbon Building, looking west through Illinois Center. The sculptured tower and wealth of colorful details on the Carbide and Carbon Building are a marked contrast to the architecture of Illinois Center.

*The Commission on Chicago Landmarks, whose nine members are appointed by the Mayor, was established in 1968 by city ordinance. It is responsible for recommending to the City Council that individual buildings, sites, objects, or entire districts be designated as Chicago Landmarks, which protects them by law.*

*Recommendations concerning specific landmarks are sent to the City Council following an extensive staff study, such as the one summarized in this report. The "significant features" of a landmark are identified in the designation ordinance approved by the City Council.*

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## CARBIDE AND CARBON BUILDING

230 N. Michigan Ave.

(1929; *Burnham Brothers, Inc., architect*)

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The CARBIDE AND CARBON BUILDING is one of the city's most loved Art Deco skyscrapers, distinguished for its unique tower and masterful use of color, as seen in the black granite and green-and-gold, terra-cotta trim. The building's lobby is a classic Art Deco design, with exceptionally fine bronze work and black marble.

The building was designed by Daniel and Hubert Burnham, sons of the legendary architect and city planner Daniel Burnham. Along with the nearby towers surrounding the Michigan Avenue Bridge, it creates one of the nation's greatest collections of 1920s architecture.

**Significant Features:** The designation specifies "all the exterior elevations, the roof of the building, and the interior public lobby space."

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The green-and-gold, terra cotta ornamentation makes the tower of the Carbide and Carbon Building one of the most distinctive elements of the Loop's skyline. Popular legend says the building's colors were chosen by the client and their architects at an office holiday party, and were inspired by the green glass and gold foil top of a champagne bottle.

**CARBIDE AND CARBON BUILDING**  
230 North Michigan Avenue  
Chicago, Illinois

Date: 1929

Architect: Burnham Brothers, Inc.

One of the last to join Chicago's burgeoning business colony along North Michigan Avenue before the Great Depression was the New York-based Union Carbide and Carbon Corporation who agreed to be the anchor tenant in a new office building located at the southwest corner of Michigan Avenue and South Water Street. Designed by Daniel and Hubert Burnham, sons of the legendary Chicago architect and city planner, Daniel Hudson Burnham, the forty-story tower has come to be recognized as a unique and colorful member of the city's family of significant Art Deco skyscrapers.

*Union Carbide: Its History*

During the 1920s, the Union Carbide and Carbon Corporation was one of the nation's industrial giants and today is still ranked in the top 500 by business publications such as *Fortune* and *Forbes*. The seventh largest chemical company in the world, Union Carbide is the United States' third largest, just behind DuPont and Dow.

Simply put, Union Carbide takes elements from the earth and air and makes them into chemicals. Founded in 1886 as only a carbon company, the corporate giant was fashioned in 1917 by New York financiers who joined it with four other companies into the Union Carbide and Carbon Corporation. World War I saw the company expand from metallurgy and carbon products into chemicals and gases. The advent of World War II moved Union Carbide into the atomic energy field. Union Carbide is familiar to the American consumer with such products as Prestone antifreeze, Glad plastic wrap, Simoniz car wax, and Eveready batteries. In fact, Union Carbide's claim to fame is the invention of the first dry cell battery and the origination of the Eveready trade mark.

However, Union Carbide's presence in the retail market is minimal. Principally, it is a manufacturer and supplier of materials. The 1980 publication *Everybody's Business-An Almanac* summarizes the work of Union Carbide as follows:

Carbide sells oxygen, chromium, manganese, and other materials to steel companies, who use their products to run the furnaces at their steel mills.

Union Carbide is tops in the production of polyethylene (the world's most widely used plastic), glycol (used to manufacture polyester fiber and anti-freeze), urethane foam, nitrogen, tungsten, vanadium, uranium, welding equipment, and sausage casings. They also make herbicides, insecticides, waste-water-treatment systems, blood analyzers, and radioisotopes. Carbide operates the government-owned nuclear facilities at Oak Ridge, Tennessee, and Paducah, Kentucky.

Currently, Union Carbide operates 500 mines, mills, and plants in thirty-seven countries. In the 1920s, it had ninety-eight separate plants and factories in Canada, Norway, and the United States and was made up of twenty-four components. A number of these were housed in the new Chicago office and included the Oxyweld Acetylene Company, which actually owned and operated the building, the Electro Metallurgical Sales Corporation, Haynes Stellite Company, the Linde Air Products Company, National Carbon Company, Inc., the Oxyweld Railroad Service Company, the Prest-O-Lite Company, Inc., and the Union Carbide Sales Company.

#### *Union Carbide and North Michigan Avenue*

Union Carbide joined with the Wrigley and Tribune companies, London Guarantee and Accident Company, Colgate Palmolive, and the Drake Hotel, to name a representative few, who contributed significant new commercial architecture to North Michigan Avenue during the 1920s. The decision to establish a corporate presence in an area of the city other than the traditional central business district signaled their recognition of the important impact of one of Chicago's most outstanding public works projects: the construction of the Michigan Avenue Bridge and the creation of a spacious urban boulevard joining the downtown and the residential Near North Side. While this civic improvement had been envisioned since the 1890s, it was not until the implementation of parts of Daniel Burnham and Edward Bennett's 1909 *Plan of Chicago* that it became a reality. In *The Architecture, Urbanism, and Economics of Chicago's North Michigan Avenue, 1830-1930*, John Wesley Stamper details the factors that guaranteed North Michigan Avenue's success.

The planning of the avenue was at one level aimed at practical ends such as the improvement of traffic, the beautification of the city, and the linking of the Loop with the Gold Coast. At another level it had great significance in the fulfillment of the economic aspirations of Chicago's commer-

cial elite. The planning work originated with a group of substantial public-spirited citizens working under the auspices of two of the city's leading business and civic club organizations. As a part of the broader Chicago Plan, it enjoyed the benefit of city-wide publicity and financial support.

As well as prestigious office towers, North Michigan Avenue soon became lined with first-class hotels and restaurants, stylish shops, luxury apartments, and exclusive private social clubs. Fueling development along the avenue was the unprecedented prosperity of the decade. The country quickly recovered from the postwar recession and business was booming. Everything was up including corporate profits, industrial production, consumer consumption, and the income level of everyone from the big city executive to the small town shopkeeper. Known as a man of few words, President Coolidge in 1925 aptly summarized the situation saying: "The business of America is business."

#### *Architecture as Advertising*

In this competitive consumer economy, one of the spectacular growth industries of the decade was the advertising business. Originally merely informative and interesting, advertising grew into a sophisticated methodology of artful intimidation, psychological manipulation, and cajolery. Photography, the movies, magazines, and newspapers were the dominant forms of communication. In this panoply of visual images, architecture became a useful tool in attracting and arresting the public's attention as John Stamper explains:

Architecture assumed the role of an advertising medium both in the imagery of a building itself and as a referential object of persuasion. There was an unparalleled interest in architecture that ran deep in the psyche of the American public. In any newspaper or magazine of the period images of buildings were paramount in advertisements for banks, trust companies, department stores, hotels, and apartment buildings. Architecture became a consumer good. Buildings were designed to give weight and credence to the company that built it, establishing it and therefore its products as an important part of the community.

The Carbide and Carbon Building belongs to this tradition which is perpetuated today by edifices such as the Sears and Quaker towers. The company openly acknowledged this, saying in a 1932 promotional piece: "Visible by day from most parts of mid-town Chicago and flood lighted at night, the Carbide and Carbon tower serves as a distinctive and perpetual advertisement for its occupants." As further proof that the building would remain synonymous with the integrity of the company, the brochure went on to say: "Both the resources of this organization and its natural interest in maintaining a building worthy of housing its own Units are positive assurance that the reputation, appointments, and servicing of the building will always remain on their present high plane."

### *The Art Deco Style and the Carbide and Carbon Building*

The Carbide and Carbon Building was designed in what was then considered an aggressively modern style that has come to be called Art Deco. Although examples of Art Deco can be seen along almost every Main Street in America, its greatest concentration and most extravagant expression is to be found in the great twentieth-century skyscraper cities such as New York, Chicago, Cincinnati, Los Angeles, Detroit, and Miami. Essentially an urban and cosmopolitan style, its most noticeable patrons were the large business corporations and financial institutions, communications and automobile industries, luxury hotels, elegant department stores, and grand movie palaces. Art Deco reflected the optimistic and buoyant American spirit of the 1920s, and as a style it embraced and celebrated the energy of industry and advances of science.

Art Deco was international and, in fact, its name derives from the Exposition Internationale des Arts Decoratifs et Industriels Modernes held in Paris in 1925. It was self-consciously modernistic. However, Art Deco was compounded of many strands, with roots in the past both here and abroad. In Europe, strong contributions came from the Art Nouveau, as exemplified by the Glasgow (Scotland) school and the work of Charles Rennie MacIntosh, and the Viennese Secession style promulgated by the Wiener Werkstatte founded in 1903 by Josef Hoffmann. Another factor was the colorism of the German Expressionist movement. In America, Frank Lloyd Wright's development of an abstract, geometric ornament was also influential. In addition, inspiration was drawn from Aztec and Egyptian Art.

In keeping with its emphasis on the future, many of Art Deco's forms were deliberately inspired by the machine, sleek and streamlined. It used manufacturing technology and new materials such as plywood, plastics, stainless steel, and chrome. Wall planes are extremely flat, and smooth materials such as limestone, polished granite, and marble are used for facing. Polychromatic effects are achieved by the application of various materials such as faience and gold leaf. Ornament, often lavish and opulent, is always in very low relief and is generally non-historical and rectilinear. Common decorative motifs are chevrons, zigzags, fluting, and reeding.

The Art Deco skyscraper overall, however, was not such a radical departure from its Beaux-Arts predecessor and, in actuality, depended first of all on the nineteenth-century American commercial style as developed by the Chicago School of Architecture. Of significant impact was the formula for a tall building worked out by Louis Sullivan. Architectural historian Cervin Robinson explains in his 1975 publication *Skyscraper Style-Art Deco, New York*:

Sullivan's use of a luxurious but tightly organized ornament within a generally classicizing massing of form can be seen as a prototype for comparable Art Deco features. His emphatic use of vertical piers with recessed spandrels is another element common in Art Deco skyscrapers. Further, Sullivan's accent on building entrance and building top by means of dynamic ornament becomes general practice in most Art Deco skyscrapers.

Surprisingly, the distinctive appearance of the Art Deco skyscraper came not from the artistic world but the legal community. The New York zoning law of 1916 required that buildings occupy a decreasing percentage of their site area as their height increased. This resulted in a series of setbacks, determined by the width of the street, and allowed a tower of unlimited height on part of the site. Stepped-back massing became a distinctive feature of Art Deco skyscrapers.

One of the hallmarks of Art Deco was, as Cervin Robinson states, that it "was intended to be both accessible to the general public and comprehensible to it." Robinson goes on to say:

Thus, the Art Deco architect was not only concerned with giving the passerby and office worker an elevating experience by enhancing entrance area and lobby space with a profusion of ornament. He was equally concerned with having the building remain readable from a distance and with its general effect in the skyline, and therefore used unusual terminations at the top and ornament scaled to distance, effects that are today perhaps no longer as readily apparent, with the occlusion of so many Art Deco skyscrapers by later, taller buildings.

That this philosophical intent was well understood by the architects and owner-builders of the Carbide and Carbon Building is underscored by the following statement, again from the company's 1932 brochure:

Beautiful from afar, the grace and dignity of this modern business structure is most strikingly apparent at its bronze and black marble portals on Michigan Avenue. Here, easy-operating revolving doors surmounted by delicate grilles and chased bronze ornament invite entry to the marble-lined corridors. Inside, the finest handiwork of artisans in metal and stone lends beauty to the efficient arrangement of the elevator entrances. This lobby, with its bronze-trimmed mezzanine floor and its soft indirect illumination, is one of the most beautiful and most impressive in Chicago.

The effect of such beauty in a building upon the morale of the people employed in it is unquestionably beneficial and inspiring; and to clients, business associates, and visitors, it is constant assurance that the organizations they are dealing with are of the highest calibre.

Fortunately, all the entrance and lobby appointments detailed above are still intact in this building.

What particularly distinguishes the Carbide and Carbon Building from other Chicago Art Deco skyscrapers is its extensive use of color. Others, such as the Board of Trade (designated a Chicago Landmark), 333 North Michigan Avenue, or 135 South LaSalle Street are simply sheathed in gray limestone. An article in the May 13, 1928 *Chicago Tribune*



announcing the new construction was boldly headlined "Green 'Nd Gold Tower Newest for Boul Mich - Splash of Color to Brighten Skyline." The author goes on to note:

Although color is fast becoming an important factor in the sale of most American products, owners and architects have overlooked to a noticeable extent its use in buildings. The Carbide tower, however, will be an exception, for D. H. Burnham & Company have designed a structure to be entirely in green and gold, with a black base.

The polychromatic composition of the Carbide and Carbon Building consists of highly polished black granite facing on the first three floors and dark green mottled terra cotta interspersed with lighter shades of green on floors four through twenty-six. This scheme is carried through to the top of the fifty-foot mast or campanile. Gold terra cotta trims the pilasters and piers and noticeably accents the campanile. A band of gold terra-cotta flower medallions marks the break between the black granite base and the varigated green terra-cotta of the rest of the building. The richness of color was carried through into the building's interior public spaces. An impressive two-story lobby was floored in gray Tennessee marble with a Belgian black marble border and a ceiling of ornamental plaster in colors. Bronze metalwork was used on the doors, elevators, and fixtures. American walnut and marble was used in the corridors of the upper stories. While in all technical aspects -- steel frame, rock caissons, forty-story height, setbacks, unbroken vertical lines -- the Carbide and Carbon Building was totally of its time, its design rich in color was an unusual departure from the prevailing conservative Chicago architectural mode. Architectural historian Carl Condit, who profiled this building in his 1973 book *Chicago, 1910-1929, Building, Planning, and Urban Technology*, notes that this may be the only one of its kind and "was the first skyscraper in Chicago to make extensive use of external color contrasts." He goes on to say:

For some reason this combination of dark mass and bright trim came to be regarded as Hollywood bad taste, but for an age that has explored all possible combinations of color in the visual arts, there is no reason why this particular association should have been regarded as any worse than the others.

A story has circulated for many years in the architectural community that the coloration of the exterior terra cotta was whimsically based on the color and form of a champagne bottle, with the deep green reflecting the glass vessel and the gold abstracting the crimped foil covering the neck and cork. This story has become an urban legend with many variations of detail, the most common versions being that the champagne bottle idea was arrived at during the architect's office Christmas party, or that it was lightheartedly adopted after a casual comment made by the client admiring a nearby bottle. Apocryphal or not, a champagne bottle is certainly one of the more appropriate symbols of the hedonistic lifestyle commonly associated with the "Roaring Twenties."

*Daniel Hudson Burnham, Jr. and Hubert Burnham: The Burnham Brothers*

The Burnham brothers enjoyed an especially eminent patrimony as their father was Daniel Hudson Burnham, celebrated Chicago architect and renowned city planner. Both Hubert (1882-1969) and Daniel H. (1886-1961) were educated at private Massachusetts preparatory schools, respectively Phillips Academy and Middlesex. Hubert went on to attend the United States Naval Academy, graduating in 1905 and then studying at the Ecole des Beaux Arts in Paris from which he graduated in 1912. During World War I he served as a Navy Lieutenant, doing aviation construction in France. Daniel H. completed a special course in architecture at Lawrence Scientific School, Harvard University. Both joined their father's firm, D. H. Burnham and Company in Chicago. After the death of the senior Burnham in 1912, the firm became Graham, Burnham & Company until 1917 when it was reestablished as D. H. Burnham & Company. In 1928 the name was changed simply to Burnham Brothers, Inc.

Their notable buildings include the Burnham Building at 160 North LaSalle Street (1924, now the State of Illinois Building), Seneca Hotel at 200 East Chestnut Street (1926), Bankers Building at 105 West Adams Street (1927), and Carson, Pirie, Scott & Company Men's Store (1928). Both continued their father's tradition of active civic and public service. Significantly, Daniel Hudson, the son of the chief architect of the World's Columbian Exposition of 1893, was active in the architecture and design of the World's Fair of 1933. Burnham, Jr. was also a member of the Chicago Plan Commission, the body largely responsible for the implementation of his father's sweeping city plan for Chicago. Both sons were members of the Illinois Society of Architects and the American Institute of Architects.

In any compilation of Chicago's Art Deco skyscrapers, the Carbide and Carbon Building stands out for its masterful use of color, as Ira Bach noted in *Chicago's Famous Buildings*, saying, "The color contrasts of the Carbide and Carbon Building make it unique among Chicago's Art Deco skyscrapers." As part of the inventory of distinctive buildings to be constructed in the 1920s along the broad new Michigan Avenue, it figures in the legacy of Chicago's commitment to become a world-class city.

## Criteria for Designation

The following criteria, as set forth in Section 2-120-620 of the Municipal Code of the City of Chicago, were considered by the Commission on Chicago Landmarks in determining that the Carbide and Carbon Building should be recommended for landmark designation.

CRITERION 1: *Its value as an example of the architectural, cultural, economic, historic, social, or other aspect of the heritage of the City of Chicago, State of Illinois, or the United States.*

The Carbide and Carbon Building has value as an example of the economic and historic heritage of the City of Chicago for its part in the real estate development of North Michigan Avenue which transformed this new thoroughfare into a unique urban asset. That North Michigan Avenue has become Chicago's premier street is not just historical happenstance. From the beginning, it was responsibly planned and judiciously executed as architectural historian John Stamper explains:

North Michigan Avenue is the city's most vital and prestigious commercial boulevard, containing some of its most significant architecture and urban planning features, and exemplifying the business and economic conditions of a great era in Chicago's building industry.

Union Carbide joined with the Wrigley and Tribune companies, London Guarantee and Accident Company, Colgate Palmolive, and the Drake Hotel, amongst others, who contributed significant new commercial architecture to North Michigan Avenue during the 1920s. Thus the Carbide and Carbon Building has value as an example of the architectural heritage of the City of Chicago.

CRITERION 3: *Its identification with a person or persons who significantly contributed to the architectural, cultural, economic, historic, social, or other aspect of the development of the City of Chicago, State of Illinois, or the United States.*

The Carbide and Carbon Building is identified foremost with the Union Carbide Corporation, one of the oldest chemical operations in the United States and one which, since its founding in 1886, has significantly contributed to the economic and social development of the City of Chicago, the State of Illinois, and the United States. While still maintaining their headquarters in New York, Union Carbide housed a number of their subsidiaries in the new Michigan Avenue office and hence significantly contributed to the economic well-being of the City of Chicago during the 1920s and beyond. A substantial presence in the Midwest signalled their recognition of the importance of Chicago as a business and commercial center.



The building's lobby is a classic Art Deco design, with exceptionally fine bronze work and black marble. RIGHT: The two-story entranceway facing Michigan Avenue. Note the ornamental "CC" in the window above the doors. BELOW: A detail of the ceiling and railing on the lobby's second level mezzanine.



The Carbide and Carbon Building is further identified with its architects, the Burnham Brothers. Daniel Hudson Burnham, Jr. and Hubert Burnham were native Chicagoans, the sons of the internationally recognized architect and city planner, Daniel Hudson Burnham. In their architectural practice and through their involvement in civic affairs, both men continued to emulate the high standard set by their father. Thus the Burnham Brothers significantly contributed to the architectural and cultural development of the City of Chicago.

CRITERION 4: *Its exemplification of an architectural type or style distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship.*

The Art Deco style would characterize American skyscraper design during the years between the close of the First World War and the onset of the Great Depression. It was a style that purported to be modern and contemporary, and the rhetoric of the times hailed it as such. With its strong vertical lines, setback composition, dramatic chiselled tower with a concentration of crowning ornament, and lavishly decorated interior public spaces, the Carbide and Carbon Building is a textbook example of the Art Deco style. Built by one of the country's largest and most profitable corporations who spared no expense in its execution, the structure is truly distinguished by overall quality of design, detail, materials, and craftsmanship. Art Deco deliberately sought to entertain and draw in the public. Buildings became advertising vehicles meant to impress the public with the probity of the corporation that built them. The Carbide and Carbon Building exemplifies this use of architecture by big business.

What gives the Carbide and Carbon Building its distinct identity among Chicago's many fine Art Deco skyscrapers are the contrasts of color in the external cladding materials used on all elevations. This particular feature of the Carbide and Carbon Building was noted by real estate publications at the time of its construction and continues to be singled out today by architectural historians who note that Chicago architects commonly eschewed the practice of using color, preferring compositions of neutral gray limestone. This makes the Carbide and Carbon Building unique for a Chicago Art Deco skyscraper.

CRITERION 7: *Its unique location or distinctive physical appearance or presence representing an established and familiar visual feature of a neighborhood, community, or the City of Chicago.*

In a series of articles for the *Chicago Tribune* in 1952 entitled Famous Chicago Buildings, author Ernest Fuller, in writing about the Carbide and Carbon Building, noted that it "contributes a dash of variety to the usual grays and browns of the city skyline." What he referred to is the unusual palette of green, gold, and black used for the Carbide and Carbon Building which creates its distinctive physical appearance. Although no longer owned by Union Carbide, the building still bears its original name, making it an established and familiar visual feature along North Michigan Avenue for sixty years.

## Significant Features

Based on its evaluation of the Carbide and Carbon Building, the staff recommends that the "significant historical or architectural features" for the preservation of this building be identified as: all exterior elevations, the roof, and the interior public lobby space.

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Additional research material used in the preparation of this report is on file at the office of the Commission on Chicago Landmarks and is available to the public.



# Acknowledgments

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The Michigan Avenue (top) and South Water Street (above) elevations of the Carbide and Carbon Building are little changed from their original appearance, including the building's granite base and its finely-detailed storefronts.

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*The Commission on Chicago Landmarks, whose nine members are appointed by the Mayor, was established in 1968 by city ordinance. It is responsible for recommending to the City Council that individual buildings, sites, objects, or entire districts be designated as Chicago Landmarks, which protects them by law. The Commission is staffed by the Chicago Department of Planning and Development, whose offices are located at 320 N. Clark St., Room 516, Chicago, IL 60610; Ph: 312-744-3200; TDD Ph: 744-2958.*